



# Weatherford®

## SURVEY REPORT

Report Date: **11/26/2012**  
 Customer: **Anadarko**  
 Job Name: **4027703**  
 Well Name: **Haymaker 29N-9HZ**

Field: **Wattenberg**  
 Rig: **H&P 307**  
 Rig Loc: **Weld**

Survey Calculation Method: <b>Minimum Curvature</b>						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
<b>True North</b>	<b>12.73 deg</b>	<b>52930 nT</b>	<b>66.93 deg</b>	<b>8.56 deg</b>	<b>0.00 deg</b>	<b>8.56 deg</b>
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	<b>911.00 ft</b>	<b>0.76 deg</b>	<b>280.76 deg</b>	<b>910.97 ft</b>	<b>-2.51 ft</b>	<b>-4.51 ft</b>

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head			
				NS (ft)	EW (ft)	Vsect (ft)	Dogleg (deg/100ft)
1043.00	0.69	331.34	1042.96	-1.65	-5.75	-2.88	0.47
1134.00	1.51	103.61	1133.95	-1.45	-4.85	-2.48	2.24
1228.00	3.88	113.08	1227.84	-2.99	-0.72	-3.07	2.56
1320.00	5.87	105.79	1319.50	-5.49	6.67	-3.88	2.26
1412.00	7.84	116.93	1410.85	-9.61	16.80	-5.67	2.57
1507.00	9.79	113.36	1504.72	-15.75	29.99	-8.75	2.13
1602.00	11.02	110.53	1598.16	-22.14	45.91	-11.48	1.40
1696.00	10.99	110.36	1690.43	-28.40	62.72	-13.89	0.05
1791.00	10.30	107.33	1783.79	-34.09	79.32	-15.77	0.93
1886.00	9.43	104.96	1877.39	-38.62	94.94	-16.75	1.01
1981.00	10.15	107.90	1971.00	-43.21	110.43	-17.81	0.92
2075.00	10.76	111.02	2063.44	-48.90	126.50	-19.82	0.89
2170.00	11.72	107.99	2156.62	-55.06	143.96	-21.99	1.19
2265.00	9.77	107.01	2249.95	-60.40	160.84	-23.47	2.06
2359.00	10.43	108.37	2342.50	-65.41	176.55	-24.90	0.75
2454.00	12.18	114.62	2435.65	-72.30	193.82	-27.81	2.25
2549.00	9.99	113.17	2528.87	-79.72	210.51	-31.37	2.32
2644.00	10.13	119.77	2622.42	-87.11	225.34	-35.31	1.22
2738.00	11.80	120.73	2714.70	-96.12	240.77	-40.71	1.79
2834.00	9.51	118.97	2809.04	-104.98	256.15	-45.96	2.41
2929.00	11.44	118.81	2902.45	-113.32	271.27	-50.76	2.03
3024.00	11.44	116.37	2995.56	-122.05	287.97	-55.59	0.51
3119.00	12.47	118.31	3088.50	-131.10	305.44	-60.57	1.16
3214.00	10.38	117.62	3181.61	-139.93	322.06	-65.52	2.20
3309.00	10.18	121.34	3275.09	-148.27	336.81	-70.40	0.73
3405.00	11.45	122.26	3369.38	-157.76	352.11	-76.30	1.34
3499.00	10.83	120.25	3461.61	-167.19	367.63	-82.07	0.78
3594.00	11.54	116.54	3554.81	-175.94	383.84	-87.03	1.06
3689.00	12.68	115.60	3647.69	-184.69	401.75	-91.62	1.22
3784.00	9.77	112.93	3740.86	-192.33	418.58	-95.37	3.11
3879.00	10.95	116.20	3834.31	-199.46	434.10	-98.90	1.39
3973.00	13.07	113.26	3926.25	-207.60	451.88	-102.92	2.35
4068.00	11.95	114.01	4019.00	-215.84	470.73	-106.81	1.19
4163.00	11.69	114.26	4111.98	-223.80	488.49	-110.66	0.28
4258.00	10.48	112.01	4205.21	-230.99	505.27	-113.97	1.35

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		Vsect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
4353.00	12.12	102.57	4298.37	-236.40	523.02	-115.34	2.60
4448.00	11.50	100.17	4391.36	-240.24	542.08	-114.89	0.83
4542.00	9.89	96.37	4483.73	-242.79	559.32	-113.58	1.87
4638.00	10.48	101.68	4578.21	-245.48	576.07	-112.50	1.15
4733.00	9.77	98.94	4671.73	-248.48	592.49	-111.81	0.90
4828.00	11.25	106.79	4765.14	-252.41	609.33	-111.93	2.16
4923.00	12.08	117.92	4858.19	-259.74	626.99	-115.20	2.52
5018.00	10.75	112.38	4951.31	-267.77	643.96	-119.29	1.81
5114.00	11.07	112.66	5045.58	-274.73	660.75	-122.38	0.34
5209.00	10.62	118.08	5138.88	-282.36	676.89	-126.27	1.17
5304.00	10.98	120.27	5232.20	-291.04	692.42	-131.31	0.57
5399.00	8.23	116.77	5325.86	-298.67	706.31	-135.69	2.96
5494.00	8.70	115.68	5419.83	-304.85	718.86	-138.95	0.52
5589.00	7.43	124.68	5513.89	-311.45	730.38	-142.85	1.88
5683.00	8.13	121.49	5607.02	-318.38	741.05	-147.26	0.87
5778.00	9.46	115.24	5700.91	-325.22	753.84	-151.11	1.72
5873.00	9.40	108.19	5794.63	-330.97	768.27	-153.54	1.22
5967.00	9.73	101.14	5887.32	-334.91	783.36	-154.05	1.29
6062.00	6.88	94.47	5981.32	-336.90	796.91	-153.01	3.16
6157.00	6.96	94.39	6075.63	-337.78	808.32	-151.36	0.08
6252.00	5.57	93.27	6170.06	-338.49	818.67	-149.77	1.47
6347.00	4.30	95.47	6264.70	-339.09	826.82	-148.56	1.35
6442.00	2.03	89.57	6359.55	-339.42	832.04	-147.73	2.41
6453.00	1.78	84.31	6370.55	-339.40	832.41	-147.63	2.77
6473.00	1.68	88.05	6390.54	-339.36	833.01	-147.46	0.75
6505.00	1.97	42.12	6422.52	-338.93	833.85	-146.86	4.53
6537.00	5.45	13.06	6454.45	-337.04	834.56	-144.86	12.03
6569.00	9.79	2.37	6486.16	-332.84	835.02	-140.66	14.21
6600.00	13.52	358.52	6516.52	-326.59	835.03	-134.55	12.28
6632.00	16.12	357.90	6547.45	-318.41	834.77	-126.63	8.14
6663.00	19.57	2.93	6576.96	-308.92	834.88	-117.35	12.18
6695.00	23.35	6.40	6606.74	-297.26	835.86	-105.76	12.46
6727.00	24.01	7.31	6636.04	-284.50	837.40	-92.98	2.36
6758.00	23.07	6.03	6664.46	-272.20	838.84	-80.67	3.45
6790.00	25.50	4.49	6693.63	-259.10	840.04	-67.62	7.85
6822.00	29.03	2.65	6722.07	-244.47	840.94	-53.15	11.34
6854.00	33.42	3.45	6749.43	-227.91	841.82	-36.81	13.78
6886.00	36.65	3.86	6775.62	-209.58	843.00	-18.67	10.12
6917.00	40.69	3.91	6799.82	-190.26	844.31	0.47	13.03
6950.00	44.02	2.98	6824.21	-168.07	845.64	22.41	10.27
6982.00	48.10	0.73	6846.41	-145.05	846.37	45.02	13.72
7013.00	51.69	359.64	6866.37	-121.34	846.44	68.16	11.89
7045.00	55.16	359.24	6885.44	-95.65	846.19	93.17	10.89
7076.00	58.67	359.24	6902.36	-69.68	845.84	118.42	11.32
7107.00	61.66	359.39	6917.78	-42.79	845.52	144.58	9.65
7139.00	64.65	359.84	6932.23	-14.24	845.33	172.38	9.43
7170.00	67.41	0.17	6944.82	14.08	845.34	200.01	8.96
7202.00	70.15	0.37	6956.40	43.91	845.48	229.13	8.58
7233.00	72.54	0.56	6966.32	73.27	845.72	257.83	7.73
7265.00	73.27	0.22	6975.73	103.86	845.92	287.71	2.50

Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
7297.00	75.37	359.56	6984.37	134.67	845.86	317.75	6.86
7328.00	78.61	358.88	6991.35	164.86	845.45	347.11	10.67
7360.00	81.72	359.12	6996.82	196.38	844.90	377.74	9.75
7391.00	84.12	359.23	7000.64	227.14	844.46	407.64	7.75
7428.00	88.11	358.47	7003.14	264.04	843.72	443.47	10.98
7544.00	89.51	357.06	7005.55	379.92	839.19	555.51	1.71
7638.00	89.65	357.63	7006.24	473.82	834.84	646.14	0.62
7733.00	90.26	358.16	7006.32	568.75	831.35	737.97	0.85
7828.00	90.35	358.86	7005.81	663.72	828.88	830.06	0.74
7923.00	91.50	0.27	7004.28	758.70	828.16	922.54	1.92
8018.00	90.00	359.99	7003.03	853.69	828.37	1015.24	1.61
8113.00	88.77	358.51	7004.05	948.67	827.13	1107.62	2.03
8208.00	89.03	358.69	7005.88	1043.63	824.81	1199.73	0.33
8303.00	88.94	358.33	7007.56	1138.58	822.34	1291.80	0.39
8398.00	89.29	359.04	7009.03	1233.54	820.16	1383.95	0.83
8493.00	89.75	359.66	7009.82	1328.53	819.08	1476.37	0.81
8589.00	89.74	0.63	7010.25	1424.53	819.33	1570.06	1.01
8683.00	89.57	0.97	7010.82	1518.52	820.64	1662.03	0.40
8778.00	89.56	2.04	7011.54	1613.48	823.13	1755.20	1.13
8873.00	89.74	3.09	7012.12	1708.38	827.39	1848.71	1.12
8967.00	90.25	2.58	7012.13	1802.27	832.03	1941.31	0.77
9063.00	88.03	0.25	7013.57	1898.22	834.41	2035.42	3.35
9158.00	87.78	0.04	7017.04	1993.15	834.65	2128.08	0.34
9252.00	87.72	358.49	7020.73	2087.07	833.44	2219.42	1.65
9347.00	88.77	0.35	7023.64	2182.01	832.48	2311.82	2.25
9442.00	91.23	1.68	7023.64	2276.99	834.16	2404.83	2.94
9537.00	90.44	4.15	7022.26	2371.85	838.99	2498.42	2.73
9631.00	89.51	5.96	7022.30	2465.48	847.28	2591.58	2.16
9726.00	89.38	7.39	7023.22	2559.83	858.32	2686.04	1.51
9821.00	89.63	7.06	7024.04	2654.07	870.26	2780.60	0.44
9917.00	89.81	6.93	7024.51	2749.35	881.96	2876.12	0.23
10012.00	90.00	5.98	7024.66	2843.75	892.64	2970.55	1.02
10107.00	89.38	8.05	7025.18	2938.03	904.24	3065.07	2.27
10202.00	88.70	7.47	7026.77	3032.15	917.06	3159.70	0.94
10297.00	88.52	9.76	7029.07	3126.04	931.29	3254.42	2.42
10392.00	87.66	9.11	7032.24	3219.70	946.85	3349.21	1.13
10486.00	88.77	8.31	7035.17	3312.57	961.08	3442.93	1.46
10581.00	89.01	8.00	7037.01	3406.59	974.55	3537.61	0.41
10676.00	90.80	7.03	7037.17	3500.77	986.98	3632.21	2.14
10770.00	90.00	6.31	7036.51	3594.13	997.89	3725.68	1.14
10866.00	91.11	3.15	7035.58	3689.79	1005.81	3820.73	3.49
10960.00	89.63	0.48	7034.97	3783.73	1008.79	3913.01	3.25
11055.00	92.53	1.16	7033.18	3878.69	1010.14	4005.94	3.14
11149.00	92.83	1.39	7028.79	3972.56	1012.23	4097.97	0.40
11244.00	92.10	0.93	7024.70	4067.45	1014.15	4190.95	0.91
11339.00	89.47	359.39	7023.40	4162.43	1014.42	4283.65	3.21
11434.00	91.42	359.58	7022.66	4257.42	1013.57	4376.12	2.06
11528.00	90.12	359.59	7021.40	4351.41	1012.89	4467.65	1.38
11537.00	90.49	359.70	7021.35	4360.41	1012.83	4476.41	4.29
11591.00	90.49	359.70	7020.89	4414.41	1012.55	4529.02	0.00

